

# How to cope with addiction?

*The effects on work supply, sick leave status  
and quality of life after participating in a  
course on life-style coping*

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# Abstract

*Background:* The Centre for drug- and addiction treatment and Centre for learning and coping at Oslo University Hospital arrange the course “Mestre Jobben – Mestre Livet”. This course aims to teach life coping mechanisms and the ability to master a process towards life-style change. Its intent develops from the demonstration that people struggling with dependence on alcohol and/or other substances and maintain an employer-employee relationship have a significant effect on society in terms of reduced work supply, sick absence, and reduced productivity. However, this population may only occasional attend substance abuse clinic services.

*Objective:* This thesis investigates how participation in “Mestre Jobben – Mestre Livet” has led to a changed work supply, sick leave status and health related quality of life among participants.

*Method:* The method of investigation uses descriptive statistics by comparing group means, correlation analysis and simple regression, and asking if participation has had desirable effects on life change. The data have been collected by a postal survey to all the participants of “Mestre Jobben – Mestre Livet” from the start-up in the fall of 2009 to the spring of 2011.

*Results:* The fraction of participants maintaining a 100% work position has increased from 60 to 65%. The study showed no change in sick leave status was found. Results showed that quality of life (indicated by a mental health component scale variable) increased at a group level but is still lower than the score of a normal population.

*Conclusion:* “Mestre Jobben – Mestre Livet” meets criteria which show the aim to be considered fulfilled. Although, because of limitations in the study design alongside limited data, there is some uncertainty related to the strength of these findings.



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# Abbreviations

<b>AA</b>	Alcoholics Anonymous
<b>AAP</b>	Work Clarification Money (arbeidsavklaringspenger)
<b>BP</b>	Bodily Pain
<b>GH</b>	General Health
<b>KRIPOS</b>	National Bureau of Crime Investigation (Kriminalpolitisenralen)
<b>MCS</b>	Mental Scale Component
<b>MH</b>	Mental Health
<b>NA</b>	Narcotics Anonymous
<b>NAV</b>	Norwegian Labor and Welfare Administration (Arbeids- og velferdsforvaltningen)
<b>OUH</b>	Oslo University Hospital
<b>PCS</b>	Physical Component Scale
<b>PF</b>	Physical Functioning
<b>RE</b>	Role-Emotional
<b>RP</b>	Role-Physical
<b>SF</b>	Social Functioning
<b>SF-12</b>	Short-Form Health Survey 12
<b>SF-36</b>	Short-Form Health Survey 36
<b>SNF</b>	Institute for Research in Economics and Business Administration (Samfunns- og næringslivsforskning A/S)
<b>SSB</b>	Statistics Norway (Statistisk sentralbyrå)
<b>VT</b>	Vitality





# 1 Introduction

There are many consequences of people struggling with an addiction to alcohol and/or other substances. Increased alcohol consumption is related to higher sickness absence rate, problems with family relations and a lower quality of life (Byrkjeland, 2010; Norström, 2006). For society itself, such consequences experience a greater impact due to problems relating to costs of treatment in the health care sector. This is explained in terms of sickness absence from work and lower productivity (Fekjær, 2004; SIRUS, 2009).

In 2007, Bergsvein Byrkjeland started the work on how to implement criteria from Raskere tilbake (RT) into services offered by the Centre for drug- and addiction treatment at Oslo University hospital (OUH). They saw that people with dependence to alcohol and/or other substances but still able to maintain employment status only minimally, or sporadically used the substance abuse clinic services (Byrkjeland, 2010).

RT was introduced by the Stoltenberg 2 government in 2007 (Ot.prp. nr. 6 (2006-2007)). The target group of Byrkjeland's work was people with abnormal drinking habits and an employer-employee relationship. This group had RT is a national project where the goal is to reduce the time a person uses to return to work from sick leave compared to the time the person would have used without help from RT. The result of the recognition that people with alcohol and/or substance dependence only used the clinic's services to a lesser degree, and the work of Bergsvein Byrkjeland, was the start-up of the course "Mestre Jobben – Mestre livet". "Mestre Jobben – Mestre livet" is a course in how to cope with the life situation and how to initiate a process that changes the life-style. There is also taught where to get help in the public health and welfare services.

This thesis has evaluated the outcome of this course. I have explored if there are any changes in the participants work supply, sick leave status and the quality of life, and subsequently the magnitude of these changes.

The hypotheses which are examined in this thesis are:

*People who have attended “Mestre jobben – Mestre livet” will experience:*

- 1. Increased work supply*
- 2. Less sick leave*
- 3. An increase of the quality of life*

In order to investigate these hypotheses I have conducted a survey where I have reached out to all the participants of “Mestre Jobben – Mestre livet” since the start-up in the fall of 2009 to the spring of 2011. They have answered two questionnaires, one questionnaire about their work- and sick leave situation created for this study, and the other regarding their health related quality of life using the Short-Form Health Survey 12 (SF-12) questionnaire. The collected data have been analyzed with quantitative statistical tools using SPSS.

The thesis is organized as follows: Chapter 1 and 2 situates this study by introducing and explaining the idea behind RT and the start-up of “Mestre Jobben – Mestre Livet”. Chapter 3 states the hypotheses and defines the underlying theory of the rationale behind a course in how to cope with life. Chapter 4 introduces and describes the methodology behind this study and chapter 5 presents how results of the survey accept the hypothesis of this thesis. In chapter 6 the strengths and validity of the results are discussed followed by a conclusion in chapter 7.



## **2 Background**

### **2.1 Raskere tilbake**

#### **2.1.1 Introduction of Raskere tilbake**

Raskere tilbake (RT) is a national project established in Norway in 2007. The proposal to start the Raskere tilbake project was made by “Sykefraværsutvalget” in 2006 and introduced in January 2007 by the Stoltenberg 2 government (Ot.prp. nr. 6 (2006-2007)).

The main purpose of RT is to reduce the time a person uses to return to work from sick leave compared to the time the person would have used without help from RT. The Stoltenberg 2 government introduced a funding mechanism to buy health- and rehabilitation services to reduce the amount of sick leave in Norway (Ot.prp. nr. 6 (2006-2007)).

RT is offered by both NAV and the specialist health care services. NAV is the Norwegian Labor and Welfare Administration, or in other words, the public welfare agency. The services of RT offered by NAV, include (i) follow-up of people needing assistance to get or keep a job, (ii) clarification, that is help to monitor or test your ability to work, (iii) work oriented rehabilitation which helps you to return to work and (iv) treatment for people with mild mental diseases and complex diseases (nav.no, 2011a).

In the specialist health care services, which in Norway cover mainly the hospitals, RT is supposed to ensure that patients who are on sick leave or in danger of being on sick leave were to receive an offer of treatment and/or an assessment for their illness sooner than what they would experience if being admitted to an ordinary waiting list. RT is not supposed to influence the waiting time for other patient groups. In the specialist health care sector, RT has prioritized treatment for patient groups with a “simple” need of treatment and patients on sick leave with high risk of a permanent exclusion from the workforce (Helsedirektoratet, 2008).

A prerequisite to be accepted into RT is that the person is on sick leave or is in a condition where he or she is in danger of becoming sick. It also means that a person has to be employed and referral to the RT program by their general physician. The person in RT cannot be receiving “arbeidsavklaringspenger” (AAP) (helse-sorost.no, 2011). AAP is funding from

NAV directly to a person to ensure income for periods the person needs help to take up work because of an illness or injury (nav.no, 2011b).

### **2.1.2 Part of the IA-agreement**

RT is a part of the Norwegian IA-agreement. This is an agreement between both the public authorities and the main employee organizations and also employer organizations in Norway. Its main goals are (i) to prevent and reduce sick leave in the Norwegian private and public sector, (ii) to improve the working environment, and (iii) to prevent exclusion in the labor market (Intensjonsavtale om et mer inkluderende arbeidsliv, 2010).

### **2.1.3 Prior evaluation of Raskere tilbake**

RT has been evaluated by Samfunns- og næringslivsforskning A/S (SNF). SNF's main finding is that RT is probably not a success from a socio-economic point of view due to the reduction in sick leave being considered too small. RT decreases the time on sick leave by 4.3 days on average compared to ordinary patients treated in the hospitals. The strongest effect is for patients receiving surgical operations, where time on sick leave is reduced by 14 days. The main reason for this result is shorter waiting period prior to an operation. SNF partly concludes that RT seems to affect the capacity rather than the quality of care (Holmås and Kjerstad, 2010).

## **2.2 Mestre jobben – Mestre livet**

### **2.2.1 Mestre jobben – Mestre livet**

“Mestre jobben – Mestre livet” is a course offered by the Centre for drug- and addiction treatment (Senter for rus- og avhengighetsbehandling) and the Centre for learning and coping (Læring- og mestringssenteret) at Oslo University Hospital (OUH) and is partly financed by Raskere tilbake (RT). The requirements for access to the course consist of how the participants have to (i) be in an employer-employee relationship and (ii) struggle with alcohol or/and drug abuse. The course is designed to teach participants how to cope with the life situation and how to master a process of changing the life-style. The participants also learn where and how they can find and get help in the public services (oslo-universitetssykehus.no, 2011).

It is not considered a normal course for people with alcohol and/or other substance abuse problems. The intent is to help people alcohol and /or substance abuse to master the life better and to achieve positive changes in life. It can be said that this is a course on how to master the life-situation and a start helping to change the life-style (Byrkjeland, 2010; oslo-universitetssykehus.no, 2011).

### **2.2.2 The development of “Mestre jobben – Mestre livet”**

“Mestre jobben – Mestre livet” started in the fall of 2009. There were many thoughts and reasons behind the decision to initiate the course:

First, those with abuse problems can be divided into two groups; moderate and heavy abusers. On one side, there are people who have a moderate abuse of alcohol and/or other substances but sustain work and can have a social life. Compared to people with a heavily abuse of alcohol and/or other substances, it is likely to believe that the effect on society in terms of absence from work, sickness benefits and other types of transfers from the government to its citizens etc. are much lower. The reason is that there is a higher number of people who can be categorized as a moderate drinker or abuser of alcohol and/or other substances than heavily abusers. Individually, the heavily abusers have higher risk for sick absence from work and other health related problems than the moderate abusers. On the other hand, for society, the

moderate abusers cause more problem collectively than what the heavily abusers do collectively because there are so many more of them (Byrkjeland, 2010).

Second, the decision to start up this type of course is the belief that increased alcohol- and drug consumption has effect on sickness absence among employees. Norström (2006) says that: *“1-liter increase in consumptions (red: alcohol consumption) is associated with an increase in sickness absence of 11-14%.”* (Norström, 2006, p. 1423). He addressed the relationship between population drinking and sickness absence. The relationship was significant for men but not for women. He also pointed out several reasons to expect a relationship between alcohol and sickness absence; (i) Heavy drinking can lead to hangovers which affect a person’s capacity to work thus entailing an increased risk of sick absence. (ii) Heavy drinkers are associated with a higher probability of somatic and psychological disorders that may lead to sick absence (Norström, 2006).

Third, the development and the thoughts of a course such as this were born in 2007. Bergsvein Byrkjeland wrote a report on how to implement the criteria from RT into parts of the Centre for drug- and addiction treatments’ services. He concluded, with some modifications, that the target group for RT used the services from the Centre for drug- and addiction treatment only to a small or sporadic degree. Also, a project which goal was to develop this type program for people under 23 years of age that were on a waiting list for interdisciplinary specialized treatment, had the experience that the target group only existing to a certain degree (Byrkjeland, 2010).

The start-up of “Mestre jobben – Mestre livet” is a way to reach out to this specific group of people that otherwise would be difficult for the Centre for drug- and addiction treatment and Centre for learning and coping to reach out to (Byrkjeland, 2010).

### **2.2.3 Course content**

The course lasts for two weeks and the content can roughly be divided into three parts; (i) problem definition, (ii) possible solutions and (iii) individual planning and motivation. The participants are contacted before start-up and they describe their own situation and history. The course lectures are a mix of lectures from professional health care workers, lectures from people who have lived in a situation with abuse themselves, a user panel, and discussions among the course participants (Byrkjeland, 2010).

The first part, names problem definition, takes up the first 2.5 days of the course. The participants are provided with relevant facts and information about alcohol and substance abuse and the problems that alcohol and/or substance abuse can lead to. Personal stories from real life situations are told and discussed (Byrkjeland, 2010). The second part, possible solutions, is the main part of the course. Here, the participants are introduced to relevant institutions, services, and treatments etc. that offer help. It covers;

1. Drug therapy
2. Cognitive treatment/coping
3. Practical stress management
4. Self-help groups/12 steps communities
5. Network mapping, to find resources within its own personal network
6. Municipal health services, social services and general physician services
7. The working place/AKAN

(Byrkjeland, 2010)

The third part, individual planning and motivation, take up the two last days. The course focuses on individual planning and motivation. On the second last day, the participants meet the user panel and discuss different paths to successfully make use of treatment services offered. After the user panel has told their story i.e. how they prioritized use of alcohol and/or other substances above other commitments and moved the limits for when, where, how much and for how long they were affected by alcohol and/or other substances, the participants are

challenged to plan their way forward. They are challenged to create an individual plan, and they are also challenged on how to take measures against their problems with addiction in everyday-life. They have to plan how to manage their problem in three time horizons. First, they need to make a plan in a short time horizon, only to the next day. Secondly, they make a plan for a longer time horizon, to the next weekend. Third, in the longest time horizon, the individual plan has to cover the next eight weeks (Byrkjeland, 2010).

During the last day, the course focuses on motivation. The motivation factor in a drug abuse treatment program is very important. The conflicted problem that meets an addict is on the one side the addiction towards using a drug, and on the other side the hope to reduce the use of a drug combined with a changing life-style (Byrkjeland, 2010).

The purpose of the patient education in “Mestre jobben – Mestre livet” is to increase the competence to live with or overcome the health problem. The patient education in this course is divided in three parts. (i) Informing the participants, (ii) make the participants aware of their own life-situation., and (iii) develop a belief that it is possible to change behavior and/or a life-style, and equip them with a tool to do so (Byrkjeland, 2010).

# 3 THEORY AND HYPOTHESIS

What is addiction? What is the consumption of alcohol and narcotics in Norway? How many of those drinking alcohol have an abnormal consumption of alcohol? How do we help people with a relationship to alcohol and/or narcotics, which are filled with abuse and overuse?

These are important but difficult questions to answer. I will give an introduction to how we can define addiction and what the effects from addiction of alcohol and/or drug use are in Norway. Also, I will introduce the theory on how an addict can change behavior with help to cope with the situation.

## 3.1 Definition of addiction

Defined by Aviel Goodman (2010) an addictive disorder is as when a person meets several diagnostic criteria:

- A) Reoccurrent failure to resist impulses to engage in a specified behavior.*
- B) Increasing sense of tension immediately prior to initiating the behavior.*
- C) Pleasure or relief at the time of engaging in the behavior.*
- D) A feeling of lack of control while engaging in the behavior.*
- E) At least five of the following:*
  - 1) frequent preoccupation with the behavior or with activity that is preparatory to the behavior*
  - 2) frequent engaging in the behavior to a greater extent over a longer period than intended*
  - 3) repeated efforts to reduce, control or stop the behavior*
  - 4) a great deal of time spent in activities necessary for the behavior, engaging in the behavior or recovering from its effects*
  - 5) frequent engaging in the behavior when expected to fulfill occupational, academic, domestic or social obligations*
  - 6) important social, occupational or recreational activities given up or reduced because of the behavior*
  - 7) continuation of the behavior despite knowledge of having a persistent or recurrent social, financial, psychological or physical problem that is caused or exacerbated by the behavior*

- 8) *tolerance: need to increase the intensity or frequency of the behavior in order to achieve the desired effect or diminished effect with continued behavior of the same intensity*
- 9) *restlessness or irritability if unable to engage in the behavior*
- F) *Some symptoms of the disturbance have persisted for at least 1 month, or have occurred repeatedly over a longer period of time.*

(Goodman, 1990, p. 1404)

Addictive behavior becomes increasingly more compulsive. Drug addicts are considered to have a continuously addictive behavior, despite knowledge of negative medical and psychological consequences (Sellman, 2009). Question researchers have been trying to answer for many years relate to why is it so hard to stop drug and substance abuse habits when the individual knows it is harmful to both physical and psychological well-being?

The addiction term can be adapted to many types of diseases or problems beyond problems with abnormal consumption of alcohol or use of other substances. In this thesis, I specifically will look at problems with addiction related to abnormal alcohol consumption and/or abuse of other substances.

## **3.2 Negative effects of alcohol and drugs**

Effects from alcohol consumption and drug use are in Norway, as in many other countries, are a major concern for the health authorities.

### **3.2.1 Alcohol**

The consumption of pure alcohol per capita for people above 15 years of age in 2007 was 6.60 liters (ssb.no, 2008). In 2007, there were 345 deaths due to alcohol use when measuring the number of deaths where alcohol was the underlying cause. The causes of death included in this number are mainly due to high consumption of alcohol over a longer period of time, and constitute only a fraction of all deaths that are fully or partly caused by alcohol (SIRUS, 2009). The numbers of admissions to somatic hospitals with alcohol related underlying diagnosis were 3 877 in 2008 (SIRUS, 2009). In addition, there are all the effects of alcohol abuse that are not seen in the statistics. For example, this can occur when a person does not show up for work or he shows up but is not able to be very productive (Byrkjeland, 2010).



Lund et al. (2010) investigate how many people that can be categorized as heavy drinkers. In this studies setting, a heavy drinker is defined as a person reporting problems because of his or her drinking habits. They refer to four models on how to measure it, and the result diverges from 66 500 in the first model to 377 000 in the fourth model. The reason for the diversion is that both the calculation method and the definition of what a heavy drinker vary between the models. According to Byrkjeland (2010) the overall effect from this group on society might be significant.

### **3.2.2 Narcotics**

How many people who use narcotics and how much they use, are difficult questions to have a correct answer on. Reasons for this are, among other things, that sale and use of narcotics are prohibited (Lund et al., 2010).

According to the National Bureau of Crime Investigation (KRIPOS) and Statistics Norway (SSB), the number of deaths caused by the use of drugs was in 2007 200 and 275 respectively (SIRUS, 2009). The reason for the difference is that they use different inclusion criteria combined with many people receiving alternative treatment because of their drug addiction. In 2007, there were 4 542 people in substitution treatment (LAR – medically assisted rehabilitation) by the health regions and 12 473 admissions to specialized treatment for this group (SIRUS, 2009). For example, Lund et al. (2010) estimate that there in 2006 were between 4 400 and 8 200 problem-users of heroin measured by methods of injection, with varying numbers measuring inhalation only or both.

### **3.2.3 Other effects**

In this thesis, I will investigate (in addition to health related quality of life) the employment- and sick leave status among participants of a course that helps people to cope with their life-situation. I will ask the question of; does addiction have an impact on the work supply?

#### **“Moderate drinkers” vs. “heavily drinkers”**

The total effect on society in terms of absence from work, sickness benefits, other types of payments etc. are much higher from the group of people who have only a moderate consumption of alcohol and/or substance abuse, compared to the group that have the highest

consumption of alcohol and/or other substances. The reason is that the number of moderate abusers is much higher than the number of heavily abusers. Even though individually the heavily abusers have higher risk of sick absence and health related problems than the moderate abusers, on a larger social scale moderate abusers cause more problem collectively than the heavy abusers because there are so many more of them (Byrkjeland, 2010).

### **Socio-economics effects**

Quantifying the consequences for society from alcohol and/or substance abuse is difficult. What we can do for people affected by alcohol or substance abuse is to a certain degree calculating the expenses these addictions contribute to in health- and social sectors. For the society as a whole, lack of data and a high degree of subjective assessments about the consequences make it difficult to measure the total effects. Types of questions surround concerns such as:

- Substance abuse leads to high expenses because it contributes to diseases, disability leave and early death.
- Substance abuse has high costs for the workplace because of reduced productivity
- The police, the Norwegian Customs, the judiciary sector and the prisons have high expenses and have to use a lot of resources to enforce the drug legislation

(Fekjær, 2004)

What to count as ‘expenses’, because of substance abuse is clearly not a straight forward question, is difficult. Such as when discussing how if early death leads to shorter payment of pension or disability leave. A research could ask the question of how much is caused because of the abuse and separated from other factors?

### **3.3 Treatment**

There is no doubt that there are negative effects resulting from alcohol- and/or other substances abuse. The debate of whether addiction is a genetic disease or something a person should take sole ownership over has been discussed between scientists and politicians for many years and will likely continue in the future.

#### **Who to treat?**

What categorizes a mental state associated with addiction is the strong and lavish appetite after something that will in turn lead to a motivational conflict. The addicted person will feel the conflict of both continuing to consume and abstain from the substance. To be an addict means, to a certain degree, loss of freedom in the form of diminished autonomy and self-control that lead the addicted person in an undesirable direction. A repeated and prolonged use of a substance will set neural traces in a person that it takes a long time, if not impossible, to get rid of (Lund et al., 2010).

#### **Types of treatment**

There are many different types of treatment of addiction. In this thesis, I have looked at one specific type of treatment, namely a short-term course over two weeks that tries to teach an addict how to cope with life situations, what type of and how to utilize help in the local community, how to cope with the struggle of trying to change detrimental life behaviours and how to cope with such a new life-style. A detailed description of the course content is given in section 2.2.3.

The requirement to the participants of “Mestre jobben – Mestre livet” was that they needed an employer-employee relationship. This specific requirement distinguishes them from other addicts in terms of having a defined level of control over the abuse. If, i.e. they would drink so much that they were in no condition to work, they would subsequently be out of work and would not be qualified to attend this course.

### **3.3.1 Treatment plan**

In many people who suffer from addiction, there is a potential for comorbidities of other psychiatric problems. Broad treatment plans for addiction has been proven to be more effective due to addressing social problems that have more practical solutions than sole medical ones. Examples come from attention paid social conditions such as housing and accommodation, legal problems, family problems, etc. It has been noted that recovery from addiction takes time. As one researcher commented, it may take months to years rather than days to weeks and can be seen as a life-style change (Sellman, 2009).

In this respect, a course that helps to cope with personal situations, that teaches where to locate help, and emphasizes that treatment continues after the educational sessions end is essential for an addict striving to decrease consumption of alcohol and/or other substances.

### **3.3.2 The importance of confidence**

Building upon this, confidence in how to master an addict's life is to develop a foundation that change is possible. This then becomes a criterion of becoming aware of the potential of initiating a change the lifestyle and succeeding in doing so. Group therapy works well for sharing experiences among addicts and to show that there are many different paths of change. It is very important for the individual to believe they can and will succeed (Fekjær, 2004).

Lack of motivation may be considered a lack of confidence or belief that change is possible. It is important to build up confidence in an addict's life (Fekjær, 2004). To help achieve confidence, focusing on immediate goals, rather than goals too far ahead in time, give the addict positive feedback on something else than on their substance abuse. For example, immediately accrediting one on showing up to an appointment can be beneficial and would lead them in a positive direction towards attending future appointments even if they did not receive desired results. The challenge for the treatment staff is to create and maintain the aspect of hope so the addict believes he can get out of his abuse and emphasize what type of challenges were encountered and overcome.

### **3.3.3 The importance of knowledge**

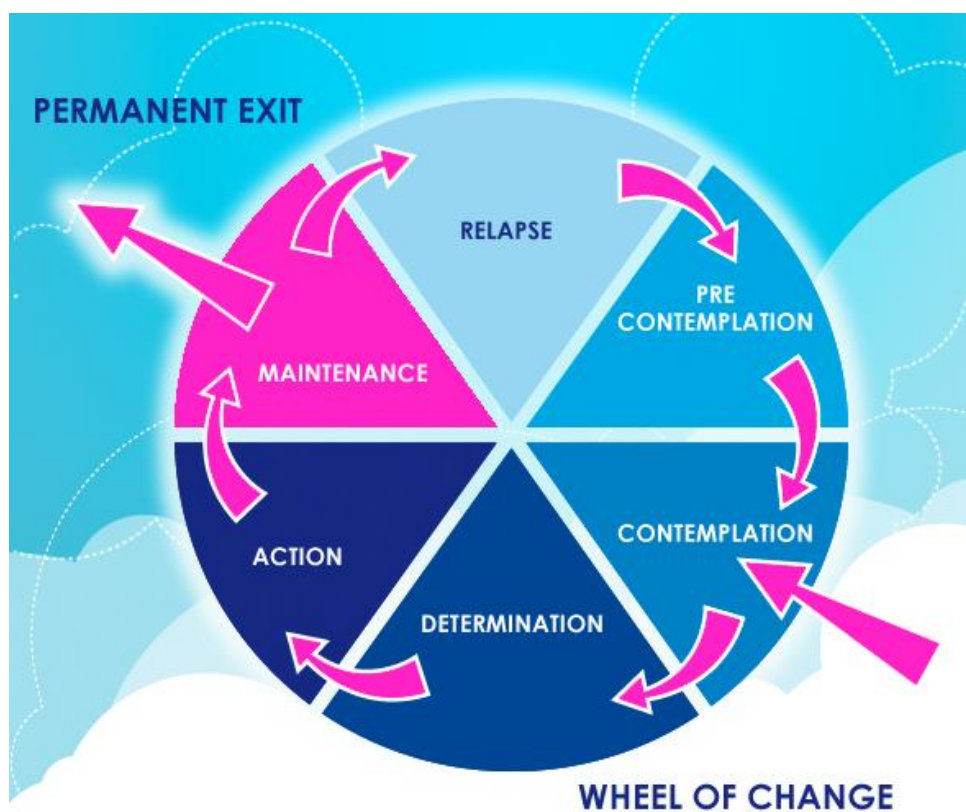
Earlier, one of the basic ideas was that knowledge was essential for successfully changing behavior. Information has the potential to increase knowledge, however it will not change

behavior in any specific way. It has been shown in various studies that patient-education based on increasing self-help skills is more effective than patient-education based purely on information distribution. A self-help course contributes to a better life-situation for patients because the patients will acquire skills that are necessary to master life-situations better. This style of confidence can affect personal motivation, and thinking and feeling, which in turn are crucial for how much a person strives to take action (Søvik and Larsen, 2008).

### 3.3.4 Changing behavior

The Wheel of Change was first introduced by Prochaska and DiClemente in 1982. It describes how most people who want or try to change a life-style or a habit have to go through six different stages. The six stages are (i) precontemplation, (ii) contemplation, (iii) determination, (iv) action, (v) maintenance and (vi) relapse.

Figure 1: The wheel of change (fsn.ie, 2011).



The thought behind the wheel of change is that first, an addict, has no thoughts of changing behavior or life-style (the first stage). Then they start the process of change where they begin to think about changing (the second stage), then determines the want for change (the third stage) before taking action (the fourth stage). *“The determination of change is a product of contemplation, with ambivalence moving over to preparation for change and at some point a decision of determination.”* (Borg, 1996, p. 621) (Blindheim, 2001; Borg, 1996).

When the action has been taken, it is time for maintenance of the situation and adaptation to the new habits (the fifth stage). The last stage of the six stages, relapse, is if the addict has a setback and has to start on the wheel of change again. A setback, or in other words a slight fall out of the circle, is not necessarily a complete fall out, but does create the need to start again at the precontemplation stage (stage one). If a person falls out it can be reflected upon as an important lesson for the person who tries to change his behavior, even if the setback is either short or long term. For instance, internal and external risk situations can be explored and strategies to cope with these situations can be made (Blindheim, 2001; Borg, 1996).

In respect of the individual in focus, changing behavior and old habits can be either easy or difficult, and the exact stage they would be located in is personal. Someone who applies for a course where they learn to cope with a new life-situation or life-style is most likely in the fifth stage, where they learn to adapt to the new situation. However, they can also be at the fourth stage, where they take action to deal with their problems. This can vary between stages the more times they try to achieve permanent change.

### **Self-efficacy**

Actions that are the results of knowing more than simply what to do *“involves a generative capability in which component cognitive, social and behavioral skills [that] must be organized into integrated courses of action to serve innumerable purposes.”* (Bandura, 1982, p. 122).

Self-efficacy deals how one believes in or has confidence in their ability to succeed in situations and how well one can perform actions required to situations (Bandura, 1994).

Situations you think you cannot handle, you will try to avoid, but situations you assume you are capable doing you will take action and perform in (Bandura, 1982). Bandura (1982) also shows that the higher self-efficacy a person has the higher accomplishment of performances

they will achieve. He notes how in order to successfully change a behavior there needs to be a certain level of self-efficacy.

Bandura (1982) refers to four sources that can trigger a person's self-efficacy level. The first are enactive attainments, which he considers the best way to increase self-efficacy because *"it can be based on authentic mastery experiences"* (Bandura, 1982, p. 126). Here, successes increase the self-efficacy level and failures decrease it. The second trigger source is verbal persuasion. Verbal persuasion tries to convince people that they possess the capabilities they need to perform an action. The third trigger point is the psychological state. It means that in judging their own capabilities, *"people rely partly on information from their psychological state"* (Bandura, 1982, p.127). If a person is tired or experiences pain, they will most likely feel that they did not handle the situation very well. The fourth trigger point is information. Information increases the self-efficacy through cognitive evaluation. More information that is known about a situation increases the judging of the personal capabilities to successfully master that situation (Bandura, 1982).

Fekjær (2004) mentions how *"self-efficacy contributes to deciding which goals are set, how much a person strives to achieve the goal, and how a person reacts on setbacks"* (Fekjær, 2004, p. 225). Self-efficacy can help people to deal with even hopeless problems as long as they are confident that they are able to do it (Fekjær, 2004).

In that respect, a person may require at least a certain amount of self-efficacy to stop abusing alcohol and/or other substances. A course with a content of how to cope with the life-situations and how to implement change, where addicts meet other persons with the same problems and experiences, and who can share experiences and information will undoubtedly increase a person's self-efficacy level. Nonetheless, the next question asked is by how much?

### **3.3.5 Self-help groups**

In this thesis, what is meant with self-help groups is a group within a setting which is not officially organized by formal networks, i.e. the public health care sector. The addicts meet and organize themselves on their own time and willingness. Common examples are Alcoholics Anonymous (AA) and Narcotics Anonymous (NA).

Kristensen and Vederhus (2005) find that after a two-year period 81% of the patients attending a self-help group had abstained from any use of alcohol or other substances the last six months. This is compared to 26% of those patients who had not been attending a self-help group. Participating in these types of groups was the only predictive factor for abstinence and the likelihood for a good result. Participating in a self-help course can help a person to change their social network in terms of getting new friends who are not abusing alcohol or other substances and learn new strategies of how to cope with the life situation. Authors such as Kristensen and Vederhus (2005) mention how they can achieve a better level of psychosocial function.

It is important to assess the problems that come with selection bias in self-help groups. The selection bias is that self-help groups attract people that are more motivated than others, and may have had the highest probability to achieve abstinence. In other terms, it means that there is a possibility that the effect they found on abstinence from participating in a self-help group is not generalizable to the whole population of addicts. “Mestre jobben – Mestre-livet” is not a self-help group, but has similarities. Here, people with a problematic relationship to alcohol and/or other substances come together and share experiences. A clear difference from this course and other self-help groups is that groups like AA and NA do not have any criteria to join.



### 3.4 Hypothesis

What can a course over two weeks, which (i) teaches how to cope with a life-situation filled with addiction, (ii) teaches how and where you can go for help and (iii) teaches how to motivate yourselves to change behavior, lead to?

According to the theory, this course should lead to an increased level of self-efficacy, increased level of confidence in yourselves and confidence that you are capable to change your life-style. Sequentially, when a situation occurs in the future where one is faced with the opportunity to use alcohol or substances, they can implement their newly learned behavior.

My hypotheses are then is people who have attended “Mestre jobben – Mestre livet” will experience:

4. Increased work supply
5. Reduced sick leave
6. An increase of the quality of life

## 4 Methodology

The aim of my thesis is to find out if the course “Mestre jobben – Mestre livet” contributed to a changed supply of labor, changed sick leave status, and changed health related quality of life among people struggling with dependence of alcohol and/or other substances. The source of my data is the participants of the course “Mestre jobben – Mestre livet” from the start-up in the fall of 2009 to the last course in the spring of 2011.

### 4.1 The survey

I chose to collect my data through two types of questionnaires. A questionnaire I made myself (appendix 1), and the Short-Form Health Survey 12 (SF-12) (appendix 2). I reached out to the respondents via mail correspondence. The respondents had to return two completed questionnaires in pre-paid envelopes.

I chose to sample the data with two questionnaires because it was important to ensure anonymity for the participants. For the respondents, the questions regarding the work and sick leave status required exact answers. In my instance, the capability of the SF-12 questionnaire is considered good as it gives correct and valid measure of a person’s quality of life. This is described in chapter 4.1.2. The decision to choose questionnaires as the method to collect the data (Kumar, 2005) was based on the geographical distribution of the study population (the whole eastern-Norway area).

#### 4.1.1 Creation and description of the questionnaire

When designing the questionnaire, I composed the questions with the idea of having the respondent giving a clear and precise picture of their job and sick leave situation at the time they attended the course and at the present time. The respondent had to state in percentage the size of work position, and answer “yes” or “no” if they were on sick leave. If they answered the sick leave question with “yes”, they also had to state in percentages how much time their sick leave applied for. I divided the percentage measurement in two, (i) equal to 100% and (ii) less than 100%. These questions had to be answered twice. First, how the situation was when they attended the course, and second, how the situation was at the time of completion for the questionnaire.

The other questions in the questionnaire were; (i) where did they find the information about the course, (ii) to what extent did they benefit from the course, (iii) would they recommend other people in the same situation to participate, and (iv) answer if the course had resulted in eight specific outcomes, i.e. prevented disability leave or sick leave (appendix 1).

#### **4.1.2 Short-Form Health Survey 12 (SF-12)**

SF-12 was chosen because it was used in Byrkjeland's (2010) evaluation. This was the first evaluation of the outcome of the course. Second, SF-12 is based on the SF-36 Health Survey which has produced great results (Ware, 2000; Ware and Sherbourne, 1992). The SF-12 questionnaire is a shorter but still a reliable measure of people's mental- and physical health (Riddle et al., 2001; Ware et al., 1996).

The SF-12 Health Survey is a measure of a person health status, divided in a Mental Health Component Score (MCS) and a Physical Health Component Score (PCS). Originally, SF-12 is developed from SF-36 (Ware, 2000; Ware and Sherbourne, 1992). SF-36 is a health survey which gives you an 8-scale profile of a person's health status. SF-12 contains the same eight dimensions but has twelve questions instead of 36.

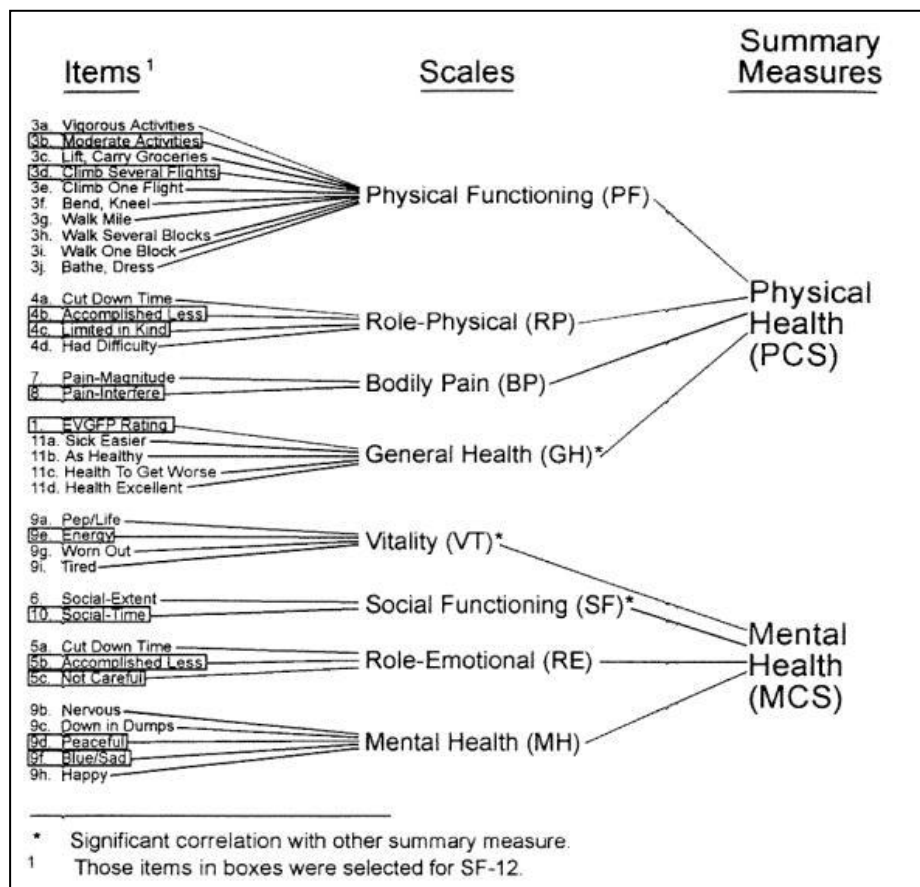
Ware et al. (1996) constructed the SF-12 Health survey in 1996. Their idea was to establish a shorter questionnaire than SF-36 that:

*(...) 1) could be scored to explain at least 90% of the variance in SF-36 physical and mental health summary measures; 2) would reproduce the average scores for the summary measures and eight-scale profile with a high degree of comparability; and 3) could be printed on one to two pages of a self-administered questionnaire or administered by an interviewer in less than 2 minutes, on average.*

(Ware et al., 1996, p. 221)

The two health component scores, measured in SF-12, are the Mental Component Scale (MCS) and Physical Component Scale (PCS). PCS consists of four sub-scores from Physical Functioning (PF), Role-Physical (RP), Bodily pain (BP) and General Health (GH). MCS consists of sub-scores from Vitality (VT), Social Functioning (SF), Role-Emotional (RE) and Mental Health (MH) (Ware et al., 1996).

Figure 2: SF-12 measurement model (Ware et al., 1996)



SF-12 is considered as: “(...) *weighted and summed to provide easily interpretable health-related scales for physical and mental health*” (Utah health status survey, 2001, p. 3). It is shorter than SF-36 and is easier to use, and I assumed it would help give me the answers about the participants health related quality of life I needed. For the individuals, if they have a score higher than the mean score among a certain group of people, it means they have better health than the mean in that specific group, and vice versa if the score is lower than the mean. It was manageable to interpret and include the results from SF-12 into this thesis.

The scores of MCS and PCS are computed “*using the scores of twelve questions and range from 0 to 100*” (Utah health status survey, 2001, p. 3). A high score indicates good health, and a low score indicates a lower level of health. By itself, a SF-12 score has little meaning. The range of scores varies, and PCS and MCS may vary over time. It is useful to compare the scores of MCS and PCS among people, either in a specific age-group or category.

### **4.1.3 Collecting the data**

Before sending out the survey by postal delivery, I attempted to call each participant and inform them of who I was and how I would like them to take a participation survey for “Mestre jobben – Mestre livet”. If I could not reach a respondent through telephone, I either sent them an email or used the postal address stored in the register. Two of the participants could not answer a postal survey, so they answered the survey through the telephone. The questionnaire and SF-12 were sent out in the last two weeks of August 2011 to everyone that attended the course between the course start date in the fall 2009 to the spring of 2011. 86 persons received the survey.

Included in the survey envelope, was a pre-stamped return envelope, an A4 sheet with an invitation, a brief introduction to what they attended, the two questionnaires, and a consent form which they had to sign and return. The participants I interviewed by telephone gave oral consent, as well as oral permission for use of quotations. After three weeks I recalled people who had not completed and returned the survey. People I had contacted only via email received a second email. I gave a two week time period for data collection before analysis of the results.

I received 42 answers, indicated by a 47.7% response rate. During this process, I created a system to register both contact and completion of the survey. The first registry used for contact stated (i) the names of the participants I had contacted by telephone or email and how many times I had contacted them and (ii) if they had answered. When the surveys were returned, I checked them out of the contact register and signed them into the completion register. At all points in time these registers showed which participants I had reached, and which participants that had returned the survey.

## Earlier research

The SF-12 questionnaire was handed out on the first day of the course and gave me mean sum-scores data from a group of N=37 individuals. I was unaware specifically who these individuals were, but only that they participated in the course. The ‘participation only’ told me that they met criteria for course entrance, so in many aspects (i.e. addiction problems and employer-employee relationship) they have the same properties as the individuals who answered my survey.

### 4.1.4 The data

In my data material, I do not have a control group. A control group is a group of people with a high degree of similarity to the experimental group but does not receive any treatment (Chambliss and Schutt, 2010). When results from an experimental group are compared with the results from the control group, more precise answers can be given. Other factors that can affect the outcome can be controlled to some extent by having a control group. *“The sole function of a control group is to quantify the impact of extraneous variables on the dependent variable(s).”* (Kumar, 2005, p. 86).

The lack of a control group leads to an uncertainty when quantifying the effect from participating in “Mestre jobben – Mestre livet”. We cannot be certain by how much a person is affected from participating in “Mestre jobben – Mestre livet”, and therefore how much the course has contributed to changes in the participants’ labor supply and/or sick leave status.

As for the health related quality of life data, measured by SF-12, it is not a before-and-after-study because (i) the participants did not necessarily take part in the same course, and (ii) the SF-12 data collected on the first day of the course cannot be traced back to its respondents. This is explained in how the participants I have studied have attended at least one of the courses that have been arranged since the course started in the fall of 2009 up to the spring of 2011 and we do not know for which persons we have the pre-score SF-12 data. This influences the validity and reliability of the study, and limits research possibilities. Since it is hard to follow the development of the physical and mental health at the individual level, we study it at the group level to enhance the ability for interpretation and results.

What is known however is that the pre-data of SF-12 are collected from a group of people with similarities to the group I have questioned in my research. Both groups have attended

“Mestre jobben – Mestre livet” and met the qualification criteria, which are struggling with alcohol and/or other substances dependence and are in an employer-employee relationship. They share many properties, and on a group level, it is not unrealistic to compare the two groups. On the other hand, the work supply- and sick leave data that I have collected are from the same individuals, and contains properties of a before-and-after study design. On the group level, I can compare how mental component scores and social functioning correlates with labor supply and sick leave status.

## 4.2 Research method

The results from attending a course like “Mestre jobben – Mestre livet” should be improved control of addiction problems, increased self-efficacy and a better life situation. To measure how well a person is we will focus mainly on the MCS variable from SF-12. I will explore if the MCS variable correlates significantly with the data of work supply and sick leave status. How the labor supply and how the sick leave situation are affected from participating in “Mestre jobben – Mestre livet” will also be addressed. Being a typical before-and-after-design with no control group means that every person in my research has been exposed to the treatment, and in this case the treatment is participation in the course (Chambliss and Schutt, 2010).

### Descriptive statistics

To analyze the data, this thesis uses quantitative methods through a descriptive statistical techniques. Descriptive statistics is *“statistics used to describe the distribution of and relationship among variables.”* (Chambliss and Schutt, 2010, p. 192). *“Descriptive statistic is a good way to (...) describe what is prevalent with respect to the issue/problem under study.”* (Kumar, 2005, p. 10). As such, I will use this to explore the quality of life and the work- and sick leave situation.

I will describe the frequency, mean, standard deviation and the changes in the data. How many are presently on sick leave compared to when they attended the course, and how many are currently in a 100% work-position compared to the prior status.

### **Comparing group means**

I will compare the group means value of MCS to the mean MCS scores of a group of N=37 individuals on the first day on the course, and mean MCS scores from a normal population in Norway to see how the quality of life differs between the groups.

### **Correlation statistics and regression**

I will use correlation research to explore if there are any relationship, association and/or interdependence between the participation in “Mestre jobben – Mestre livet” and the wanted outcome. This type of study is good when exploring the relationship between two or more aspects of a situation (Kumar, 2005). I will look at the SF-12 data I collected and see how it correlates with other variables, and also conduct a small regression analysis. The variables chosen are based on the correlation analysis, with hope that the regression analysis will show which variables will most influence a participant’s level of mental health. A Kolmogorov-Smirnov test to check for normality of the MCS variable confirmed the results of this thesis.

## **4.3 Validity and reliability**

### **4.3.1 Validity**

The concept of validity is that the results from the research measure what they are intended to measure. It asks the question of whether or not the research is providing answers to the research questions. The concept of validity can be divided into three types; face and content, concurrent and predictive, and construct (Chambliss and Schutt, 2010; Kumar, 2005).

#### **Face and content validity**

Face validity surrounds whether the question asked gives a good meaning of the concepts being measured. For instance, will the count of the number of drinks consumed be a valid measure of alcohol consumption. Content validity is if the question covers the full range of the issues that are being measured. If a part or parts of the concepts measured is not covered, content validity is not present (Chambliss and Schutt, 2010; Kumar, 2005).



It is subjective to say that a self-made questionnaire has face- and content validity. I could have asked the questions much more detailed, but inquired into whether it was relevant or not. My purpose was to explore the labor supply and sick leave status between when the participants attended the course and the present situation. I also wanted to distinguish between a 100% work-position and less than 100% work position. To that extent I confirm this thesis has face- and content validity.

### **Concurrent and predictive validity**

*“Concurrent validity is judged by how well an instrument compares with a second assessment concurrently done. Predictive validity is judged by the degree to which an instrument can forecast an outcome.”* (Kumar, 2005, p. 155).

It is difficult to discuss if my research confirms concurrent and predictive validity measures since I cannot compare my results with other courses like “Mestre jobben – Mestre livet” that focus on people with addiction problem. Also, with the absence of a control group people with the same property but have not been affected by the intervention (in this case attended the course) reduces generalizability. I cannot know for certain that the effects of the course are applicable to other groups of people with addiction problems. I will come back later on in the discussion chapter.

### **Construct validity**

Construct validity is a “(...) *technique for establishing the validity of an instrument.*” (Kumar, 2005, p. 155). This is used when there is no clear criterion for validation purposes. To establish construct validity you need to do a statistical analysis to establish how much each factor constructs to the total variance. The higher level a factor contributes to the total variance, the higher is the degree of validity (Chambliss and Schutt, 2010; Kumar, 2005).

Based on my review of the literature, it is challenging to determine how much a course in how to cope with life and life-style can in fact contribute to the wanted changes in life. The results of my survey alongside the shortcomings of the data will be discussed in further chapters.

### 4.3.2 Reliability

If a research instrument is reliable, it is meant to possess properties as consistent and stable, and predictable and accurate. The more reliable a research instrument is, the less it is affected by random error or chance variation (Chambliss and Schutt, 2010; Kumar, 2005). If the issue we are measuring gives us different results the second or third time we explore it, the data and research method does not have a high degree of reliability.

My data of the work- and sick leave conditions among the participants should have a high degree of reliability. It is only possible to possess a work-position equal to 100% or less and answer yes or no on the sick leave question. If we would ask them again today, it is likely to believe we would receive the same answers. The reliability of SF-12 has been proven and is a widespread measure in health related quality of life. In Norway it is translated and validated by Loge et al. (1998) (Byrkjeland, 2010; Ware et al., 1996).

### 4.3.3 Threats to internal validity

#### Selection bias

Selection bias is a *“source of internal (causal) invalidity that occurs when characteristics of experimental and comparison group subjects differ in any way that influences the outcome.”* (Chambliss and Schutt, 2010, p. 146). It means that the results that I measure among the participants does not have to be a result of the participation in the course “Mestre Jobben – Mestre livet”. It is plausible to think that among the group of people with addiction problems, only the ones that are most motivated to change behavior will attend such a course in the first place. If so, they would have the highest probability to change their life-style independent of participation in the course. The participants of the course are non-random and that can lead to results that are not universal (Chambliss and Schutt, 2010).

As mentioned in section 4.1.4, an important aspect to have in mind is that the group sum scores of SF-12 data I have from a group of N=37 individuals from the first day of the course are not necessarily the same individuals that I have questioned. There is no register that states the identification of these individuals, so I cannot view development on an individual level of the quality of life data. I can only do group comparisons of the development of quality of life.

Alternatively, the labor- and sick leave data that I have collected, both in the prior and present state are from the same individuals and can be directly compared.

### **Hawthorne effect**

As Byrkjeland (2010) also mentions, some of the effects from the course can simply be that the participation in the course makes the participants feel special. This is called the Hawthorne effect and applies to explored change in a person's behavior is attributed to the fact that he is being observed. He is feeling special because he gets attention from a well-meaning organizer, and it is the participation in the course itself that contributes to changing behavior, not the content of the course (Byrkjeland, 2010; Chambliss and Schutt, 2010).

# 5 Results

## 5.1 Descriptive statistics

In this chapter I will present the results of my study. First I will show you the descriptive statistics from my survey, followed by a discussion in the next chapter. In table 1 I have explained the abbreviations of the variables.

Table 1: Description of variables I

Variable	Description
Gender	Sex
Knowledge	Source of knowledge
priorWork	Work situation when participating in the course
priorSick	On sick leave or not when participating in the course
priorSickPercent	Prior sick leave in percent
currentWork	Work situation now
currentSick	On sick leave or not today
currentSickPercent	Current sick leave in percent
benefit	Benefitted from the course
recommend	Recommend course to other
masterJob	Learned to master your job situation better
QoL	Participating led to increased quality of life
selfKnowledge	Participating led to increased self-knowledge wrt. problems you are having
socialFunctioning	Participating led to better social functioning
StartorMoreWork	Participating led to that you were able to start working again/work more than before
avoidSickLeave	Participating led to that you avoided long time sick leave
avoidDisability	Participating led to that you avoided a disability condition
noChangesWork	Participating led to no changes in the working situation
PF	Physical functioning score
RP	Role-physical score
BP	Bodily pain score
GH	General health score
VT	Vitality score
SF	Social functioning score
RE	Role-emotional score
MH	Mental health score
PCS	Physical Component Score
MCS	Mental Component Score

## Work supply and sick leave situation

The work supply and sick leave data are as followed.

Table 2: Work and sick leave data

Variables	N	%
priorWork		
<100%	16	40 %
100 %	24	60 %
priorSick		
No	32	80%
Yes	8	20%
priorSickPercent		
<100%	3	37.5%
100 %	5	62.5%
currentWork		
<100%	14	35 %
100 %	26	65 %
currentSick		
No	32	80 %
Yes	8	20 %
currentSickPercent		
<100%	0	0 %
100 %	6	100 %

To begin, 60% of the participants had a work position of 100% with a standard deviation of .50 when they attended the course. In the current situation, it has increased to 65% of the participants with a standard deviation of .48. The standard deviation is the “*square root of the average squared deviation of each case from the mean*” (Chamblis and Schutt, 2010, p. 208). A smaller standard deviation indicates that the data are close to the mean, and that is why it is encouraging to have a small standard deviation. For this study in particular, it is positive that the mean of work supply has increased and the standard deviation has decreased.

On the question about the sick leave situation, the participants’ had to answer with either a yes or no. If the participant answered yes, he had to state if the sick leave was less or equal to 100%. In both the prior and current situation, 80% of the participants were not on sick leave. Among the participants who were on prior sick leave, 37.5% were less than 100% sick while 62.5% were in 100% sick leave stage. Among the current sick, everyone that answered was in

a 100% sick leave stage and two participants did not answer the current sick leave percent question.

## Other questions from the self-made questionnaire

The survey contained the following information:

Table 3: Answers from self-made questionnaire

Variables	N	%
gender		
female	13	31.7%
male	28	68.3%
knowledge		
Aftenposten	28	68.3%
GP	3	7.3%
Employer	3	7.3%
Family	3	7.3%
Friends/colleague	1	2.4%
Other	3	7.3%
benefit		
Very little	0	0 %
Little	7	17.1%
Medium	10	24.4%
High	19	46.3%
Very high	5	12.2%
recommend		
No	3	7.3%
Yes	38	92.7%
masterJob		
No	31	75.6%
Yes	10	24.4%
QoL		
No	25	26.8%
Yes	16	73.2%
selfKnowledge		
No	11	26.8%
Yes	30	73.2%
socialFunctioning		
No	36	87.8%
Yes	5	12.2%
StartorMoreWork		
No	39	95.1%
Yes	2	4.9%
avoidSickLeave		
No	38	92.7%
Yes	3	7.3%

avoidDisability	No	39	95.1%
	Yes	2	4.9%
noChangesWork	No	30	73.2%
	Yes	11	26.8%

Sixty eight percents of the participants were men and 32% women. 68.3% contained the information about the course from Aftenposten. 58.5% of the participants benefitted from the course in either a high or to a very high degree. 17.1% benefitted to a small degree from participating while none of the participants answered that they benefitted to a very small degree. 92.7% will recommend this course to other people in the same situation as themselves.

Regarding the perceived results of the course, 24.4% felt that they mastered their job better (table 4), 39% increased their quality of life, 73.2% increased their self-knowledge with respect to problems they experienced, 12.2% thought they got a better social functioning, 4.9% believe that they were able to start working or work more, 7.3% avoided long time on sick leave, 4.9% avoided a disability condition and 73.2% experienced no changes in the working situation.

## 5.2 Quality of life

We have seen how the work supply and sick leave status among the participants have changed, so I will now describe the change in the quality of life among the participants. As discussed earlier, we are using the participants' mental health as an indication of their quality of life. The major problem with comparing the development of their mental health is that we do not have data from before the intervention from the same participants who answered my survey. I have SF-12 data from 37 participants on their first day of the course. Unfortunately, they cannot be identified so I do not know which course they attended. This means that the two groups, the group that I asked and these 37 individuals, are fairly homogeneous.

I will also compare how the MSC of the participants I questioned from a general population survey in a different study by Gandek et al. (1998) in Norway, with N=1885 people. To compare the different MCS variables, I will use a syntax that computes a t-test in SPSS

because “using syntax, you can compute a t-test in SPSS from only the two group means, the two group standard deviation and the two group sizes.” (Field, 2009, p. 336). I will use this syntax because the three groups my SF-12 data originates from does not have the same sample size. Later on a more detailed discussion about advantages and disadvantages will follow.

First, I will compare the mean SF-12 scores from my survey with the mean score from the N=37 participants from the first day of the course.

Table 4: Comparing group means I

ID	x1	x2	sd1	sd2	N1	N2	df	poolvare	T	sig
PF	48,34	49,97	9,27	9,56	37	41	76	88,82	-0,76	0,45
RP	42,73	47,96	11,7	10,45	37	41	76	122,36	-2,09	0,04
BP	44,5	49,99	12,4	10,93	37	41	76	135,77	-2,08	0,04
GH	40,49	44,74	12,17	11,81	37	41	76	143,56	-1,56	0,12
VT	42,58	44,8	11,28	11,08	37	41	76	124,88	-0,88	0,38
SF	35,28	43,51	11,61	14,14	37	41	76	169,15	-2,79	0,01
RE	34,47	44,08	12,23	12,41	37	41	76	151,94	-3,44	0
MH	38,35	42,98	10,83	11,97	37	41	76	130,95	-1,79	0,08
PCS	48,08	50,54	10,57	10,91	37	41	76	115,54	-1,01	0,32
MCS	33,86	41,4	11,57	13,12	37	41	76	153,95	-2,68	0,01

Table 5: Description of variables II

Variable	Description
ID	SF-12 categories
x1	Mean SF-12 scores from pre-group
x2	Mean SF-12 scores from group I have surveyed
sd1	Standard deviation of x1 variables
sd2	Standard deviation of x2 variables
N1	Individuals in the pre-group
N2	Individuals in the prior-group
Df	Degrees of freedom
poolvare	Pooled variance
T	t-value
Sig	Significance level

MCS is significantly higher in the group I have surveyed than in the prior group with a t-value of -2.68 with a .01 significance level.



Table 6: Comparing group means II

ID	x1	x2	sd1	sd2	N1	N2	df	poolvare	t	sig
MCS_N	50,6	41,4	9,9	13,12	1885	41	1924	99,55	5,84	0
PCS_N	50,3	50,54	8,8	10,91	1885	41	1924	78,3	-0,17	0,86

In table 7, I have compared the mean SF-12 score from my survey with the mean population score of MCS from N=1885 individuals from the article of Gandek et al. (1998). The mean MCS score is significantly lower than the normal population score. This is the same direction as Byrkjeland (2010) finds.

## 5.3 Correlation and regression

### Correlation

Correlation is a measure which describes the relationship between variables. It is very helpful in that it will give us both the direction and the strength of a relationship between two variables. It has a value from negative one to positive one. The closer the correlation coefficient is to negative one, the more it indicates a negative relationship between two variables. The closer the coefficient is to positive one, the more it indicates a positive relationship. If the coefficient is close to zero, there is no special relationship between the variables (Newbold et al. 1995).

What I wanted to look at was which variables explained the level of the MCS variables I found (table 5). To check this I completed a correlation analysis to see which variables correlate significantly with the MCS. The MCS variable is the most important variable to illustrate the participants' quality of life. As Byrkjeland (2010) showed, the participants had a significant lower MSC than the mean in a normal population.

Table 7: Correlation analysis (MCS as comparison variable)

<b>Variables</b>		
priorWork	Pearson Correlation	0,08
	Sig. (2-tailed)	0,62
	N	40
priorSick	Pearson Correlation	-0,24
	Sig. (2-tailed)	0,14
	N	40
currentWork	Pearson Correlation	0,21
	Sig. (2-tailed)	0,20
	N	40
currentSick	Pearson Correlation	-0,36
	Sig. (2-tailed)	0,02
	N	40
Benefit	Pearson Correlation	0,32
	Sig. (2-tailed)	0,04
	N	41
selfKnowledge	Pearson Correlation	0,33
	Sig. (2-tailed)	0,04
	N	41
socialFunctioning	Pearson Correlation	0,32
	Sig. (2-tailed)	0,04
	N	41
avoidDisability	Pearson Correlation	-0,37
	Sig. (2-tailed)	0,02
	N	41
noChangesWork	Pearson Correlation	-0,38
	Sig. (2-tailed)	0,01
	N	41
RP	Pearson Correlation	0,39
	Sig. (2-tailed)	0,01
	N	41
GH	Pearson Correlation	0,31
	Sig. (2-tailed)	0,05
	N	41
VT	Pearson Correlation	0,61
	Sig. (2-tailed)	0,00
	N	41
SF	Pearson Correlation	0,82
	Sig. (2-tailed)	0,00
	N	41
RE	Pearson Correlation	0,76
	Sig. (2-tailed)	0,00
	N	41

I will now describe the correlation between MCS and the variables. In table 9, I have added the variables that correlated significantly, and also the work and sick leave variables, even those correlations were not significant. As we can see, there is a significantly negative relationship between the MCS and being on sick leave today. The Pearson's correlation coefficient is  $-.36$  with a  $.02$  significance level. The other work- and sick leave variables have no significance correlation.

Another variable that correlates is the social functioning variable. The correlation coefficient between social functioning and MCS is  $.32$  with a  $.04$  significance level. The variable self-knowledge tells us if the course led the participants to increased self-knowledge with respect to personal problems. It has a correlation coefficient of  $.326$  with a  $.04$  significance level. How the participants perceived the benefits from the course correlates with MSC with  $.317$  with a  $.04$  significance level. We also see that MSC correlates significantly with sub-scores in SF-12. That VT, SF, RE and ME correlate significantly is not unexpected since they are sub-scores of the MCS variable. From the correlation analysis I have found the variables most associated with the level of the mental health among the participants at the time of the survey.

## Regression

I have made a regression analysis. Regression is used to predict values of a dependent variable from values of independent variables (Field, 2009). I have used MCS as the dependent variable and explored how much different variables are associated with an individual's mental health.

Table 8: Model summary, regression

R square	0,37
Adjusted R square	0,30

Table 9: Model coefficients, regression

Variables	$\beta$	Std. Error	t	Sig.
Constant	38,56	8,01	4,81	0,00
currentSick	-13,55	4,43	-3,06	0,00
benefit	3,96	2,07	1,92	0,06
selfKnowledge	5,04	4,22	1,19	0,24
socialFunctioning	9,33	5,44	1,71	0,10

In this regression, the following variables are entered as the independent variables: current sick, benefit of the course, increased self-knowledge with respect to problems the participants experience and social functioning. These variables were chosen mainly because they correlated significantly with MCS in the correlation analysis. I did not use sub-scores of MCS as they would naturally correlate significantly with the main variable and contain less strength. From the regression analysis, we see that it is only the current sick coefficient that is significant. The benefit variable is also strong with significance on the .06 level. The  $R^2$  is .372 and the adjusted  $R^2$  is .30.  $R^2$  shows how well the regression approximates the real data, and the adjusted  $R^2$  indicates the amount of variance in the outcome that the model explains in the population (Field, 2009). The properties of this regression analysis will be discussed in the following chapter.

## 6 Discussion

In this chapter I will discuss my results in more detail, explain how I interpret them and link them up to my theory. Also I will discuss advantages and disadvantages with my data and the selected study design. I have three types of results; descriptive statistics and correlation, group mean comparison, and regression analysis to create a model of variables that influence the mental health of the participants using the MCS variable.

The purpose of this study was to investigate if participating in the course “Mestre jobben – Mestre livet” led to any change in the participants labor supply, sick leave status and the quality of life. More thoroughly, my hypotheses were that participating in the course would lead to (i) increased work supply, (ii) reduced sick leave and (iii) an increase of the quality of life.

### 6.1 Work supply and sick leave situation

The work supply was divided in either a 100% work position or less than a 100% work position. This was due to few respondents of my data (n=41), and it was sensible to have only two categories of the work supply. The proportion of individuals who had a 100% work position increased from 60% to 65%, and the proportion of participants on sick leave independent of their work position were the same in the prior and current state, namely 20%. The difference is that everyone in the current state that is on sick leave is at a 100% sick leave level, while in the prior state 37.5% of participants on sick leave were on a sick leave level less than 100% (table 3).

As for work supply, the results showed an improvement in numbers. 24.4% (table 4) of the participants felt that their participation entailed that they learned to master the job situation better, and 73.2% (table 4) got a better self-knowledge with respect to problems they had. With these findings in mind, it appears as though the course has fulfilled its goal with respect to increase the participants' skills to cope with their situation. With the importance of knowledge and a high level of confidence in regards to successfully managing a new life-style (Fekjær, 2004; Søvik and Larsen, 2008), we are led to believe that the self-efficacy among the participants has been increased. The trigger points of a person's self-efficacy level that I mention in section 3.3.4 are likely to have been met, at least to a certain degree.

From Statistics Norway we find that the sickness absence rate in 2008, 2009 and 2010 was 7.0%, 7.5% and 6.8% respectively (ssb.no, 2011). These are sickness days in percentage of scheduled work days. If the sickness absence rate is approximately around 20% for the participants, we spot a much higher rate of sickness absence among them. These results point in the direction that the course has not affecting the sick leave rate in a particular way. This finding supports what Sellman (2009) states that treatment takes months to years rather than days to weeks.

## **Limitations**

The limitation of this study is the small number of participants and that there is no control group. My results will, in that respect, be lacking strength due to the fact I cannot say for certain how much of the change in the labor supply can be traced back to the participation in the course. There are most likely other factors contributing to changes in the labor supply.

Considering the limited data in my study and the necessity for more conclusive results, asking what stage the participants are in on their way to abstinence, have they reached it or not, and where on the “wheel of change” (section 3.3.4) the participants are calls for further research beyond the scope of my study.

## **6.2 Quality of life**

I have used the MCS variable from the SF-12 questionnaire as a measure of the participants’ mental health, and further the participants’ quality of life. Also, on the self-made questionnaire the participants were asked on a subjective scale if participating in the course led to an increased quality of life.

To see how the MCS variables developed, I have compared the mean SF-12 scores from respondents in my survey with the mean SF-12 scores from 37 participants on the first day of the course, and with a representative population from Norway of 1885 individuals. The reason for using MCS as a measure of quality of life is two-fold. First, it was used by Byrkjeland (2010) in the first evaluation of the course, and second, the SF-12 survey is widely used and proven as a measurement of quality of life (described thoroughly in section 4.1.2).

In table 5, we see that the mean score of MCS has increased from 33.86 among the 37 individuals on the first day of the course, to 41.40 from my study. I have used a syntax in SPSS that computes a t-test. When comparing these two mean score, we that MCS has changed significantly with a t-value of -2.68 and with a significance level of .01.

The normal population from Norway with 1885 individuals (Gandek et al., 1998) has a mean MCS score of 50.6. The difference is significant with a t-value of 5.85 with a significance level of <0.01 (table 7).

Compared to Byrkjeland's (2010) results, the individuals in my study have a significantly higher MCS mean values than what Byrkjeland (2010) measured. Although, the MCS mean values are still lower for a normal population. As mentioned in chapter 3.3.1, the problems that are a part of an addict's life can encompass more than one specific problem. These can be family or work related, physical and psychological problems, or social problems, etc., and it takes time to learn to cope with your situation. I have not gone into the specific details of the life of the participants as that was not the intent of this study.

The increased mean values of MCS shows the participants' mental health has increased. The types of questions behind the MCS variable are related to (i) the energy level, (ii) the social functioning level, (iii) how much you have accomplished, and (iv) if you have felt 'blue', 'sad' or 'peaceful' (Appendix 2; Figure 2).

These issues are important measures of the self-perceived mental health state regarding quality of life. The participants' physical health does not fluctuate from the normal population and from the N=37 individuals on the first course day (Gandek et al., 1998; table 5 and 7). That means that participating in "Mestre jobben – Meste livet" does not affect physical health (which in any case is also not a goal with respect to the content of the course). From these results, it is clear that the quality of life among the participants has increased. Of the four sub-scores of SF-12, vitality, social functioning, role-emotional and mental health, only vitality does not change significantly (table 5). That is a strong indication the quality of life among the participants increased. This may also indicate that the participants' confidence in that change is possible has increased. The self-efficacy among the participants, the belief that change is possible and an increased level of determination, may lead the participants to achieve a better quality of life.

## **Limitation**

An important issue on the reliability of the data is that the N=41 individuals who answered my survey are not necessarily the same individuals who I collected the pre-SF-12 data from. There is no register to identify who they are, meaning that some of the participants who I asked may or may not be one of the original 37. Further, it could also mean that if the two groups had completed the SF-12 questionnaire on the first day of the course, it is already a significant difference. This difference would in that case been subtracted from when I compared the mean score of the SF-12 variables. Also, we cannot know when they attended the course, so the timeline from when the intervention happened to my survey is different.

With these issues in mind, alongside not having a control group, we have to reduce the strength of my results. However, there is still a likely positive effect from participation on the quality of life even if the strength of that effect is not measured accurately. As noted previously, a more comprehensive and time consuming study to assess this issue is needed. “Mestre Jobben – Mestre livet” can take some part in the participants’ quality of life heading in a positive direction, but we do not know for certain other factors that also have affected the participants mental health in this period.



## 6.3 Correlation- and regression analysis

### 6.3.1 Correlation

It is informative and interesting to see which variables that correlates significantly with the MCS variable. The Pearson's correlation coefficient is a "*standardized measure of the strength of relationship between two variables*" (Field, 2009, p. 791).

The reason for such an analysis is to find the variables that can best explain the increase of the participants' mental health found with the increase of the MCS variable.

#### **Current sick**

Among the work and sick leave variables, only current sick correlated significantly with MCS (table 8). The correlation was negative, and this status can be explained by many reasons. It varies from simple illness, to more complex physical and psychological diagnoses. I have not looked at which specific type of illness the participants have, but being sick and away from work etc., has shown strong correlation with how a person generally feels. This makes it clear how important it is to stay working with respect to the level of the mental health, and how important it is to help people to not only drink less or stop entirely and also keep working.

Bandura (1982) mentions how enactive attainment and the psychological state are two trigger points of a person's self-efficacy that are negatively affected when being sick. If a person is sick, and feels that cannot cope with the situation, these reflections can also lead further lower mental health status among the participants. This connection can help explain why being sick leads to a lower state of mental health.

## **Benefit and increased self-knowledge**

From the correlation analysis we see that a high degree of self-perceived benefit from participating in the course and increased knowledge with respect to personal problems are important variables in describing the increase of mental health among the participants.

With the course content and the idea behind the start-up of the course in mind, a high degree of self-perceived benefit from participating would presumably lead to better knowledge about personal conditions. This teaches the participants where to find help in the local health services, and helps the participants to take individual measures. Patient education thus becomes a good starting-point for the participants to cope with their situation.

Important issues for how the person will manage life in the future consist of characteristics such as if a participant feels that the course has managed to increase the level of information and if it helped the person make a plans for the future. Increasing motivation and confidence, as explained earlier, is very important for a person who struggles with dependence to alcohol and/or other substances. This means that to have confidence in oneself and to have knowledge about life- struggles hold a certain association with self-efficacy when trying to deal with problems (Bandura, 1982; Fekjær, 2004; Søvik and Larsen, 2004).

## **Social functioning**

We see that the variable social functioning, meaning that the participants felt that “Mestre jobben – Mestre livet” led to better social functioning, also correlates significantly with the MCS variable. The fact that social functioning increases and explains some of the increase in mental health among the participants is interesting because it tells us that social functioning is important for the psychological well-being. *“Smaller social networks, fewer close relationships, and lower perceived adequacy of social support have all been linked to depressive symptoms”* (Kawachi and Berkman, 2001, p. 458).

Experiencing increased social functioning, better functioning in the everyday life and a higher ability to cope with situations can lead to a healthier mental state compared to states of addiction. It will be a self-reinforcing effect (Bandura, 1982; Fekjær, 2004) based on the idea that success leads to success; you get more confident that change is possible, and being more social with family and friends means perhaps less time drinking alcohol or use other types of illegal substances.

## Other variables

There are also other variables that correlate significantly with the MCS variable. We see that the sub-score of MCS correlate significantly. It is not a surprising result that sub-scores correlates with the main variable. The sub-scores role-physical and general health also has a positive correlation. The variable noChangesWork, correlates negatively with the MCS variable. The fact that a respondent feels that participating in the course did not impact the element of the work-place it tells us that the person may not have received the wanted outcome from the course. The survey I issued does research what the participants have done in the meantime between the end of participation and my study. We would have to look further into why the participants feels the course did not change the working situation or experience a lower state of level of mental health.

## 6.4 Regression

I used a linear regression in SPSS with the MCS variable as the dependent variable. I have tested MCS for normality with a Kolmogorov-Smirnov test. The model is:

$$MCS = 38.56 - 13.55currentSick + 3.96benefit + 9.33 socialFunctioning + 5.04selfKnowledge \quad (1)$$

I have selected the variables that explain the level of the MCS variable in an individual. The strongest variable is 'current sick'. Since the benefit variable is strong, it is almost significant. The properties of the variables are described in the previously section. We see in equation 1 the change in the MCS variable from one-unit change in the independent variables. The  $R^2$  is .37. It is an essential link between correlation and the regression model. A high value of  $R^2$  indicate a better regression, but still it is dangerous to make general interpretations of  $R^2$  (Newbold et al., 1995). The regression model should be viewed as an arrow that points how much the different variables explain the level of MCS, but should not be viewed as a definitive answer.

## 7 Conclusion

The purpose of this study has been to evaluate the labor supply and quality of life among the participants of “Mestre Jobben – Mestre Livet”. The data from my survey show that the percentage of participants who contain a 100% work-position has increased from 60% to 65%. There has not been found a change in the sick leave status among the participants.

The quality of life, indicated by the mental component scale (MCS) variable from the SF-12 survey, shows on average an improvement from a group of N=37 individuals from the first day of the course to the N=41 individuals I asked in my survey. The group mean MCS score has increased from MCS=33.86 to MCS=41.4 (table 5). When comparing the group mean I found that the difference was significant with a t-value of -2.68. The limitation that comes from the fact that the individuals in the pre-group cannot be identified means that there could have been a significance difference in the mean group-scores before they attended the course. If a difference exists, it should then be subtracted from the difference I found. Compared to a normal population, the participants still show a significantly lower group mean MCS score with a t-value of 5.84 (table 6).

The goals of “Mestre Jobben – Mestre Livet” were to help people with problems regarding abuse of alcohol and/or other substances to master their life-situation better and achieve the changes in their life. As mentioned earlier, we can say that it is a course in how to master your life-situation and a start to help to change life-style (Byrkjeland, 2010; oslo-universitetssykehus.no, 2011). To measure this, we have looked on the labor supply and the quality of life. I have found an increase in the mental health among the participants and a small increase of the labor supply, however there are many other aspects of these questions that I have not looked into, and it is impossible to see if all aspects of these goals are met.

In further research studies, there should be a closer follow-up of participants of the same or similar intervention. The same individuals should be followed over a longer period of time and such a study should contain more participants. As well, a control group would be preferable to compare differences in individuals that participate in an intervention and individuals who do not. That would create improved measurement tools investigating how much of the effect comes from participating in the intervention compared to other sources.



# References

- BANDURA, A. 1982 . Self-Efficacy Mechanism in Human Agency. *American Psychologist*. vol. 37, no. 2, 122-47.
- BANDURA, A. 1994. Self-efficacy. In. V.S. Ramachaudran (Ed.). *Encyclopedia of Human Behavior* (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1998).
- BLINDHEIM, M. 2001. Endringshjulet. *Rus & avhengighet*, 3, 18.
- BORG, S. 1996. Treatment of alcohol dependence: Experiences of using biological markers in monitoring and prevention of relapse. *Alcohol & Alcoholism* vol. 31, no. 6, 621-624.
- BYRKJELAND, B. 2010. *Mestre jobben – mestre livet. Evaluering av et mestringstilbud til arbeidstakere med rusrelatert sykefravær*. Master thesis, Oslo, Department of Health Management and Health Economics, University of Oslo.
- CHAMBLISS, D. F. & SCHUTT, R. K. 2010. *Making Sense of the Social World 3<sup>rd</sup> edition*. Pine Forge Press.
- FEKJÆR, H. O. 2004. *Rus. Bruk, motiver, skader, behandling, forebygging, historie*. Gyldendal Norsk Forlag AS.
- FIELD, A. 2009. *Discovering Statistics using SPSS 3<sup>rd</sup> edition*. Sage Publications Ltd.
- FSN.IE. 2011. The process of addiction and the wheel of change. [Online]. Family Support Network. Available: <http://www.fsn.ie>, [http://www.fsn.ie/resources/process\\_addiction.html](http://www.fsn.ie/resources/process_addiction.html) [Accessed September 10 2011].
- GANDEK, B., WARE, J. E., AARONSON, N. K., APOLONE, G., BJORNER, J. B., BRAZIER, J. E., BULLINGER, M., KAASA, S., LEPLIGE, A., PRIETO, L. & SULLIVAN, M. 1998. Cross-Validation of Item Selection and Scoring for the SF-12 Health Survey in Nine Countries: Results from the IQOLA Project. *Journal of Clinical Epidemiology*, vol. 51, no. 11, 1171-1178.
- GOODMAN, A. 1990. Addiction: definition and implications. *British Journal of Addiction*, 85, 1403-1408.
- HELSEDIREKTORATET. 2008. *Aktivitetsutvikling og ventetider i somatisk spesialisthelsetjeneste 2002-2007*. Rapport. Divisjon helseøkonomi og finansiering avdeling norsk pasientregister.
- HELSE-SOROST.NO. 2011. *Raskere tilbake*. [Online]. South-Eastern Norway Regional Health Authority. Available: <http://www.helse-sorost.no>, <http://www.helse-sorost.no/omoss/english/Sider/page.aspx> [Accessed September 3 2011].

- HOLMÅS, T. H. & KJERSTAD, E. 2010. *SNF-rapport nr. 07/10*, Bergen, Samfunns- og næringslivsforskning AS.
- INTENSJONSAVTALE OM ET MER INKLUDERENDE ARBEIDSLIV 1. MARS 2010 – 31. DESEMBER 2013 (IA-AVTALEN). 2010.
- KAWACHI, I. & BERKMAN, L. F. 2001. Social Ties and Mental Health. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, vol. 78, no. 3, 458-467.
- KRISTENSEN, Ø. & VEDERHUS, J. K. 2005. Selvhjelpsgrupper i rusbehandling. *Tidsskrift for Den norske legeforening*, nr. 20, 125: 2798-2801.
- KUMAR, R. 2005. *Research Methodology 2<sup>nd</sup> edition*, Sage Publications Ltd.
- LOGE, J. H., KAASA, S., HJERMSTAD, M. J. & KVIEN, T. K. 1998. Translation and Performance of the Norwegian SF-36 Health Survey in Patients with Rheumatoid Arthritis. I. Data Quality, Scaling Assumptions, Reliability, and Construct Validity. *Journal of Clinical Epidemiology*, vol. 51, no. 11, 1069-1076.
- LUND, I., BRETTEVILLE-JENSEN, A. L., SKRETTING, A., RISE, J., NORDLUND, S. & AMUNDSEN, E. J. 2010. *Hva er misbruk og avhengighet? Betegnelser, begreper og omfang*. SIRUS-Rapport nr. 4/2010, Oslo, Norwegian Institute for Alcohol and Drug Research.
- NAV.NO. 2011a. *Raskere tilbake*. [Online]. The Norwegian Labor and Welfare Administration. Available: <http://www.nav.no>, <http://www.duo.uio.no/publ/helse/2011/120416/Master-Persson.pdf> [Accessed September 3 2011].
- NAV.NO. 2011b. *Arbeidsavklaringspenger*. [Online]. The Norwegian Labor and Welfare Administration. Available: <http://www.nav.no>, <http://www.nav.no/Arbeid/Jobb+og+helse/Arbeidsavklaringspenger> [Accessed September 3 2011].
- NEWBOLD, P., CARLSON, W. L. & THORNE, B. M. 1995. *Statistics for Business and Economics 6<sup>th</sup> edition*. Pearson Prentice Hall.
- NORSTRÖM, THOR. 2006. Per capita alcohol consumption and sickness absence. *Addiction*, 101, 1421-1427.
- OSLO.UNIVERSITETSSYKEHUS.NO. 2011. *Rusmestring: Mestre jobben – mestre livet*. [Online]. Available: <http://www.oslo-universitetssykehus.no>, <http://www.oslo-universitetssykehus.no/pasient/behandlinger/Sider/rusmestring.aspx> [Accessed September 3 2011].
- OT.PRP. NR. 6 (2006-2007) 2006. *Om lov om endring i arbeidsmiljøloven og folketrygdloven (tilrettelegging for og oppfølging av sykmeldte mv.)* [Online]. Ministry of Labour. Available: <http://www.regjeringen.no>,

- <http://www.regjeringen.no/en/dep/ad/dok/regpubl/otprp/20062007/otprp-nr-6-2006-2007-.html?id=430455> [Accessed September 3 2011].
- RIDDLE, D. L., LEE, K. T. & STRATFORD, P. W. 2001. Use of SF-36 and SF-12 Health Status Measures. A Quantitative Comparison for Groups Versus Individual Patients. *Medical Care*, vol. 39, no. 8, 867-878.
- SELLMAN, D. 2009. The 10 most important things known about addiction. *Addiction*, 105, 6-13.
- SIRUS. 2009. *Alcohol and Drugs in Norway 2009*. Oslo, Norwegian Institute for Alcohol and Drug Research.
- SSB.NO. 2008. *Alkoholforbruk per innbygger 15 år og over. Liter ren alkohol*. [Online]. Statistics Norway. Available: <http://www.ssb.no>, [http://www.ssb.no/magasinet/slik\\_lever\\_vi/tab-2008-06-04-01.html](http://www.ssb.no/magasinet/slik_lever_vi/tab-2008-06-04-01.html) [Accessed September 10 2011].
- SSB.NO. 2011. Sykefravær for arbeidstakere (prosent), etter kjønn, næring, type sykefravær, tid og statistikkvariabel. [Online]. Statistics Norway. Available: <http://www.ssb.no>, [http://statbank.ssb.no/statistikkbanken/Default\\_FR.asp?PXSid=0&nvl=true&PLanguage=0&tilside=selectvarval/define.asp&Tabellid=07869](http://statbank.ssb.no/statistikkbanken/Default_FR.asp?PXSid=0&nvl=true&PLanguage=0&tilside=selectvarval/define.asp&Tabellid=07869) [Accessed November 15 2011].
- SØVIK, M. L. & LARSEN, T. 2008. Kronisk syke har nytte av selvhjelpskurs. *Tidsskrift for Den norske legeforening*, nr. 18, 128: 2085-6.
- UTAH HEALTH STATUS SURVEY. 2001. *Interpreting the SF-12*. [Online]. Utah Department of Health. Available: <http://www.health.utah.gov>, [http://health.utah.gov/opho/publications/2001hss/sf12/SF12\\_Interpreting.pdf](http://health.utah.gov/opho/publications/2001hss/sf12/SF12_Interpreting.pdf) [Accessed September 10 2011].
- WARE, J. E. & SHERBOURNE, C. D. 1992. The MOS 36-Item Short-Form Health Survey (SF-36). Conceptual Framework and Item Selection. *Medical Care*, vol. 30, no. 6, 473-483.
- WARE, J. E. 2000. SF-36 Health Survey Update. *Spine*, vol. 25, no. 24, 3130-3139.
- WARE, J. E., KOSINSKI, M. & KELLER, S. D. 1996. A 12-Item Short-Form Health Survey. Construction of Scales and Preliminary Tests of Reliability and Validity. *Medical Care*, vol. 34, no. 3, 220-233.



# Appendix 1

## Own questionnaire:

Mestre jobben – mestre livet 2009 - 2011	
Raskere tilbake, Oslo universitetssykehus	
<b>ANONYMT SPØRRESKJEMA</b> <b>"MESTRE JOBBEN - MESTRE LIVET"</b>	Til internt bruk: _____

1) Hvordan fikk du kjennskap til dette mestringstibudet?

☐ Aftenposten

☐ Fastlege

☐ Arbeidsgiver

☐ Familiemedlem

☐ Venner/kjente/kollegaer

☐ Annet: \_\_\_\_\_

2) Når du deltok på Raskere tilbake tilbudet "Mestre jobben – mestre livet", hva var din arbeidssituasjon på det tidspunkt?:

Stillingsprosent: \_\_\_\_\_ %

Var du ved oppstart av kurset sykmeldt? ☐ JA \*) ☐ NEI

\*) Hvis ja, hvor mange prosent var du sykmeldt \_\_\_\_\_ %

3) Hva er din arbeidssituasjon på nåværende tidspunkt?

Stillingsprosent: \_\_\_\_\_ %

Er du sykmeldt i dag? ☐ JA \*) ☐ NEI

\*) Hvis ja, hvor mange prosent er du sykmeldt \_\_\_\_\_ %

4) I hvilken grad hadde du nytte av dette mestringskurset?

☐ Svært stor grad

☐ Stor grad

☐ Middels grad

☐ Liten grad

☐ Svært liten grad

---

Side 1 av 2

**5) Vil du anbefale andre i din situasjon til å delta på kurset?**

- ☐ Ja  
☐ Nei

Evt. kommentar: \_\_\_\_\_

\_\_\_\_\_

**6) Mener du at din deltakelse i dette Raskere tilbake tilbudet har ført til ...:**

(sett gjerne flere kryss)

- ☐ ...at du har lært å mestre din jobbsituasjon bedre  
☐ ...at du føler du har fått økt livskvalitet  
☐ ...at du har fått mer selvinnsett ifht. de problemer du måtte ha  
☐ ...at du har fått en bedre sosial funksjonsevne  
☐ ...at du har kommet deg tilbake i arbeidslivet / tilbake i større grad  
☐ ...at du har unngått å gå ut i en lengre sykemeldingsperiode  
☐ ...at du har unngått å bli uføretrygdet  
☐ ...ingen forandringer i arbeidssituasjonen: hvorfor ikke:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**7) Kommentarer/tilbakemeldinger ifht. din erfaring med dette Raskere tilbake tilbudet (bruk evt. eget ark):**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Tusen takk for hjelpen !

# Appendix 2

## SF-12 Health survey:



Draft

### Din Helse og Trivsel

**INTRODUKSJON:** Dette spørreskjemaet handler om hvordan du ser på din egen helse. Disse opplysningene vil hjelpe oss til å få vite hvordan du har det og hvordan du er i stand til å utføre dine daglige gjøremål. *Takk for at du fyller ut dette spørreskjemaet.*

For hvert av de følgende spørsmålene vennligst sett et (X) i den ene luken som best beskriver ditt svar.

**1. Stort sett, vil du si at din helse er:**

☐ Utmerket    ☐ Meget god    ☐ God    ☐ Nokså god    ☐ Dårlig

**2. De neste spørsmålene handler om aktiviteter som du kanskje utfører i løpet av en vanlig dag. Er din helse slik at den begrenser deg i utførelsen av disse aktivitetene nå? Hvis ja, hvor mye?**

	Ja, begrenser meg mye	Ja, begrenser meg litt	Nei, begrenser meg ikke i det hele tatt
b. <u>Moderate aktiviteter</u> som å flytte et bord, støvsuge, gå en tur eller drive med hagearbeid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Gå opp trappen <u>flere</u> etasjer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**3. I løpet av den siste uka, hvor ofte har du hatt noen av de følgende problemer i ditt arbeid eller i andre av dine daglige gjøremål på grunn av din fysiske helse?**

	Hele tiden	Mye av tiden	En del av tiden	Litt av tiden	Ikke i det hele tatt
b. Du har <u>utrettet mindre</u> enn du hadde ønsket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Du har vært hindret i å utføre <u>visse typer</u> arbeid eller gjøremål	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Draft

4. I løpet av den siste uka, hvor ofte har du hatt noen av de følgende problemer i ditt arbeid eller andre av dine daglige gjøremål på grunn av følelsesmessige problemer (som for eksempel å være deprimert eller engstelig)?

	Hele tiden	Mye av tiden	En del av tiden	Litt av tiden	Ikke i det hele tatt
b. Du har <u>utrettet mindre</u> enn du hadde ønsket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Du har utført arbeidet eller andre gjøremål <u>mindre grundig enn vanlig</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. I løpet av den siste uka, hvor mye har smerter påvirket ditt vanlige arbeid (gjelder både arbeid utenfor hjemmet og husarbeid)?

☐ Ikke i det hele tatt    ☐ Litt    ☐ En del    ☐ Mye    ☐ Svært mye

6. Disse spørsmålene handler om hvordan du har følt deg og hvordan du har hatt det den siste uka. For hvert spørsmål, vennligst velg det svaralternativet som best beskriver hvordan du har hatt det. Hvor ofte i løpet av den siste uka har du:

	Hele tiden	Mye av tiden	En del av tiden	Litt av tiden	Ikke i det hele tatt
d. Følt deg rolig og harmonisk?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Hatt mye overskudd?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Følt deg nedfor og deprimert?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. I løpet av den siste uka, hvor ofte har din fysiske helse eller følelsesmessige problemer påvirket din sosiale omgang (som det å besøke venner, slektninger osv.)?

☐ Hele tiden    ☐ Mye av tiden    ☐ En del av tiden    ☐ Litt av tiden    ☐ Ikke i det hele tatt